

CLAIM AMENDMENTS

Amend claims: 1, 4, 5, 8, and 10 and add new claims 13-16 as follows:

1. (Currently amended) A method for selectively reducing the permeability of one or more relatively permeable geological layers of an oil-bearing formation, to inhibit breakthrough of driving fluid from a driving fluid injection well via at least one of said layers into an oil production well, which method comprises the steps of:

- injecting a driving fluid comprising a first compound into the formation via the injection well wherein the first compound comprises an alkaline material;
- detecting the first compound in well fluid of the oil production well;
- upon detection, injecting a second compound, the second compound comprising iron ions, into the formation via the oil production well, to react with the first compound to form an insoluble salt in order to provide a flow restriction generated by a third compound which comprises a reaction product of the first and second compounds in at least one relatively permeable geological layer through which breakthrough of the driving fluid into the oil production well has occurred.

2. (Original) The method according to claim 1, wherein a second fluid comprising the second compound is injected via the production well, which second fluid has a mobility intermediate between the mobilities of the oil and of the driving fluid in the formation.

3. (Previously Amended) The method according to claim 1, wherein the first compound is inert relative to the compounds present in the oil-bearing formation.

4. (Currently Amended) The method according to claim 1, wherein the ~~first compound comprises an alkaline material and~~ the second compound comprises iron chloride.

5. (Currently Amended) The method according claim 4, wherein the second compound further comprises components selected from the group consisting of

hydrochloric acid, corrosion inhibitor, and/or flocculent, ~~such as a low molecular weight poly acryl amide (PAA) or partially hydrolyzed poly acryl amide (PHPAA).~~

6. (Previously Amended) The method according to claim 1, wherein the first compound is encapsulated.
7. (Previously Amended) The method according to claim 1, wherein the oil-bearing formation comprises various oil-bearing layers having different permeabilities, which layers are separated by substantially impermeable layers, such as shale barriers, and wherein the method is applied to inhibit breakthrough of driving fluid into the production well via one or more relatively permeable oil-bearing layers.
8. (Currently Amended) A kit of compounds comprising a first compound for injection into a subsurface formation via an injection well which first compound can pass through the formation concurrently with a driving fluid wherein the first compound comprises an alkaline material, and a second compound for injection into the formation via a production well, the second compound comprising iron ions, which second compound can react with the first compound so as to form an insoluble salt reaction product in the formation which imposes a flow restriction.
9. (Original) The kit according to claim 8, wherein the first compound comprises an alkaline material and the second compound comprises iron chloride.
10. (Currently amended) The kit according to claim 9, wherein the second compound further comprises components selected from the group consisting of hydrochloric acid, corrosion inhibitor, and/or flocculent, ~~such as a low molecular weight poly acryl amide or partially hydrolyzed poly acryl amide.~~
11. (Previously Amended) The kit according to claim 8, wherein the first compound is encapsulated.

12. (Previously presented) The method of claim 1, wherein a spacer fluid is not injected into the production well between detection of the first compound and injection of the second compound.

13. (New) The method of claim 1 wherein the second compound comprises a low molecular weight poly acryl amide.

14. (New) The method of claim 1 wherein the second compound further comprises a partially hydrolyzed poly acryl amide.

15. (New) The kit according to claim 8 wherein the second compound further comprises a low molecular weight poly acryl amide.

16. (New) The kit according to claim 8 wherein the second compound further comprises a partially hydrolyzed poly acryl amide.